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LUBRICATING OIL COMPOSITION**Publication number:** JP2000063866**Publication date:** 2000-02-29**Inventor:** BABA ZENJI; HANIYUDA KIYOSHI**Applicant:** SHOWA SHELL SEKIYU**Classification:**

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C10N; C10N20/00; C10N20/02; C10N30/00; C10N30/06;
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- European:**Application number:** JP19980234758 19980820**Priority number(s):** JP19980234758 19980820

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Abstract of JP2000063866

PROBLEM TO BE SOLVED: To obtain a composition being excellent in thermal oxidation stability, lubricating properties, water resistance filtration characteristics in the aspect of environment, safety and practicality and having the lowest possible ash such as zinc by mixing a base oil with an abrasion-proofing agent comprising phosphorothionate, an acid phosphoric ester, and a trialkyl dithiophosphate, and a rust preventive comprising a polyalkylenepolyamide. **SOLUTION:** An abrasion-proofing agent comprises a phosphorothionate selected among trialkyl phosphorothionates represented by formula I: $S=P(-O-R1)_3$ (wherein R1 is a 4-18C saturated alkyl or the like), etc., and an acid phosphoric ester amine salt represented by formula: $[X=P(-XR2)_2XH].[N(R3R4R5)]$ (wherein X is S or O; R2 is a 2-30C alkyl; R3 is a 1-30C alkyl; and R4 and R5 are each H, a 1-30C alkyl or the like), and a trialkyl dithiophosphate. The rust preventive is the reaction product of a polyalkylenepolyamine represented by formula III: $H_2N-(R10-NH)_mH$ (wherein R10 is a 2-4C alkylene; and m is 2-6) with a monocarboxylic acid.

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